HEALTH

EDITED BY

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Notes by the Way

"Health is the foundation of all our physical happiness."—*Herder.*

WE are glad to note that the subject of open spaces and public recreation-grounds is coming prominently to the front as a topic of high social importance. In every great city there are many spots, including disused burial-grounds, which, at comparatively small cost, could be converted into pleasant breathing-spots, where the tired and jaded of the city's units might rest after the day's labours. The conversion of such places into recreation-plots, bright with flowers, is a work in which nothing that savours of desecration enters. To utilise the resting-places of past generations, to beautify them, and to convert what is often a damp, dreary collection of decaying tombstones into a "fair estate," is surely a work not merely of positive philanthropy, but of public health.

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"THE Metropolitan Public Garden, Boulevard, and Playground Association," whereof Lord Brabazon is chairman, is doing a great public work in the directions just indicated. We learn from the first annual report of this body, that it has planted trees in Mile End-road, London, at a cost of £40; while at a cost of £1,200 the disused burial-ground of St. Andrew, Holborn, has been converted into a public garden. The Kyrle Society laid out the burial-ground of St. George's, Bloomsbury, and to this useful work Lord Brabazon's Society gave a donation of £100. The Ecclesiastical Commissioners, we learn, desired to enclose a common of over twenty-two acres in extent, at Hammersmith, but this action was successfully opposed by the Society; while the project of the London and North-Western Railway to acquire St. James's burial-ground, Hampstead-road, was also opposed and practically in a successful manner. The Railway Company obtained only a small part of the ground, the remainder being transferred to the Vestry of St. Pancras, to be laid out as a public space.

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IT is much to be desired that societies similar to those now actively engaged in London in securing breathing-spaces for the people should exist in all great cities and towns. Sanitarians are never weary of preaching the benefits of fresh air; and one practical means of applying their teaching certainly consists in the formation of the resting-places, which in summer form recreation grounds, and which, "all the year round," constitute the "lungs" of the densely populated districts in which such open spaces are situated.

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A CORRESPONDENT of a medical contemporary directs attention to the frequent decay of the teeth seen in young mothers. The duties of nursing, &c., are assumed to draw from the maternal system the lime-compounds which are requised for the due nutrition of the teeth. The inference follows that the diet of the weakly child—which is rich in phosphates and other salts of lime—may be prescribed with advantage in such cases to the mother.

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MORE disease from the dairy in Dundee. The scarlet fever epidemic has already been mentioned, and now we learn typhoid fever has been traced to a similar source. St. Pancras, in London, has recently passed through an epidemic of typhoid fever, which was spread by milk. People should understand that of all fluids none absorb poisonous matters more readily than milk itself, or liquids of which milk forms part. Experiment has shown that milk will readily absorb the odour of turpentine, ordinary gas, musk, &c.; and that in some cases such odour was perceptible in the milk after fourteen hours. Carelessness in our homes in the matter of milk-exposure near infectious disease is, therefore, likely to result in the spread and propagation of such ailments. It is no uncommon thing to find in many houses a pantry used for the storage of milk placed near a sink or closet. Such a practice is highly dangerous, and should be avoided, even though no disease is present in the household.

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THE brain has generally been regarded as a part of our organisation which lies entirely outside the sphere of operative interference by the surgeon. It is not generally known that the matter of the brain itself is non-sensitive, and that persons have recovered from severe injuries of the head in which several ounces of brain-matter have actually been lost. Professor Ferrier, in a recent address on the functions of the brain, points out the interesting fact (to which, it may be added, surgery itself has been leading up) that in the near future it will be justifiable enough for surgeons to attempt to cure certain brain affections by the actual handling and examination of the great centre of the nervous system. Such a view of matters certainly forecasts a veritable triumph of the healing art; for it need hardly be said that there are no cases in face of which medicine stands more hopelessly than many forms of brain-disease. To-day operations are successfully performed which but a few years ago were regarded as essentially fatal in their nature. It is not too much to predict that brain-surgery will form a department of the medical art of the future from which great things may be hoped for in the interest of suffering humanity.

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THE use of that homely remedy, castor oil, is often rendered a matter of difficulty, owing to the nauseous taste of the oil. A highly useful piece of information, therefore, for the "family circle" comes to hand in the shape of a prescription whereby the taste of the oil may be completely disguised. Of castor oil one drachm is prescribed, and to this must be added the same quantity of glycerine, twenty minims tincture of orange-peel, five minims tincture of

senega, while cinnamon water is to be finally used so as to make up the whole to a half-ounce mixture. Such an emulsion is easily taken, even by children; and one of the trials of the nursery in the administration of the familiar medicine, may be avoided through the employment of the above formula.

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Dr. Andrew Wilson's lecture-dates for the week ending Nov. 10, are as follow:—Leith, Monday, Nov. 5; Paisley, Tuesday, Nov. 6; Burntisland, Nov. 7; Dalkeith, Nov. 8; and Greenock, Nov. 9. In reply to correspondents, it may be added that all communications respecting the Prince's Hall and other lectures in London should be addressed to Mr. John Flack, 74, Great Queen-street, London, W.C. The dates of the four Prince's Hall lectures on "Nerves and Brain," are Dec. 27 and 31, 1883, and on Jan. 2 and 5, 1884.

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Intelligence is at hand showing that a severe epidemic of trichina-disease is at present raging in Saxony. Nearly 400 persons are said to be affected, and deaths occur daily. The *trichina* is a minute "worm" found in the flesh of infected pigs. When eaten by man, the immature "worms" produce in his digestive system myriads of young. These bore their way from the stomach to the muscles of the chest; and it is needless to add that the migratory process is attended with severe pains, fever, and often leads to a fatal result. Once located in the human muscles, the new brood of worms can develope no further; and if the patient's strength tides him over the migration from the stomach, he is safe. In time, the worms, as they rest in the muscles, degenerate into mere specks of lime. Only when introduced (as were their parents) into the stomach of another warm-blooded animal can the new brood pass onwards to their full development; and in the case of the denizens of human muscle, it is needless to say there is no chance of this latter event being brought to pass. The prevention of trichina-disease is that of all other parasitic ailments—namely, the thorough cooking of the food. It is only on the continent, as a rule, where smoked sausages and like foods are consumed that the trichina-disease appears in its full development.

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Dr. Koch, whose researches into the nature of the "splenic fever" of animals were duly noticed in our "Germ Theory" articles, declares, as the result of his Egyptian researches, that cholera is due to a minute living particle, called a *bacillus*. We know that these *bacilli* are found associated with many, if not all, fevers, and with other ailments, of which consumption is probably the most notable. Koch is of opinion that these little living specks are the cause of the diseases with which they are associated; but science is not yet agreed concerning the correctness of this opinion. It is a highly difficult matter to say whether these living bodies are the actual originators of disease, or merely accompaniments of the fevers, &c., in which they appear, and medical opinion is at present divided over this highly important question.

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In the course of Koch's researches, the possibility of transmitting cholera to lower animals formed the subject of experiment. By means of cholera-matter containing the *bacilli*, attempts were made to infect various animals, but without success. So far, therefore, it would appear that cholera is specially a human disease. The living particle of cholera is declared by Koch to resemble most nearly the *bacillus* found in the disease affecting horses, and known as "glanders."

Original Essays

"Life is not to live, but to be well."—*Martial.*

HOW TO BECOME THIN OR FAT.

By a Surgeon to Several Metropolitan Hospitals.

SECOND PAPER.

The formation of fat in the body is a natural one when it proceeds within certain limits and when occurring at certain periods of existence. Every one must be familiar with the plump condition of healthy babies, but every one is not aware that the percentage of fat in the newly-born infant varies from ten to nearly twenty per cent. of its body weight, and is relatively greater than that found in the adult body, which is ordinarily about five or six per cent. of the entire weight of the individual. Women have a doubtful advantage in this matter, as in their normal physiological state the amount of fat immediately beneath the skin is rather more than one per cent. in excess of that in men, though men past the prime of life usually accumulate rather a large quantity of it. A certain amount of fat is found in the tissues below the skin of all healthy beings, even in those that one is accustomed to regard as thin people. The amount of this fat varies greatly and within physiological limits in different individuals, and in the same individual at different periods of life. Common observation must have taught us of this natural variation, and when the limits which we are ordinarily accustomed to meet with are overstepped, then the individuals are said to be either too fat or too thin.

Fat, which usually first appears during the sixth month before birth, becomes subsequently deposited in certain definite bodily regions, such as the tissue beneath the skin; and it seems to have a preference for certain portions of the body, so that, even in fat people, there are parts which are comparatively poor in fat, and this peculiar predilection of certain parts in man and animals for the accumulation of fat has not, up to the present, been satisfactorily explained; but it is probably due to local anatomical peculiarities. The tissues immediately beneath the skin belong to the class of tissues known to anatomists as *connective tissues*, and it appears to be chiefly by the conversion of the fixed cells of these tissues that fat cells are formed. The recent researches of Toldt, Flemming, and other German workers, though differing in some particulars, tend to confirm this view; but these writers do not deny the possibility of the formation of fat in other parts. As to the How? Why? When? and Where? of excessive fat-formation, these are questions which, even in their present imperfect state, would require far too much space and technical knowledge to be now considered. It will suffice for my present purpose to mention that an excessive supply of nourishment of certain kinds, coupled with a lack of sufficient activity in the individual, are very important factors in the production of corpulence.

It may, then, be taken as established, that in physiological conditions the accumulation of fat in definite parts of the connective tissues, and especially with subcutaneous (or under-skin) tissue, does occur; but whether this be due to special influences and to the arrangement of the blood-vessels of the part, or whether the regions in which fat is formed and deposited may be considered as *special fat-forming organs*, are still moot points. Of the internal organs, the liver is the only one which may, in a healthy state, participate (and this usually temporarily) in the deposit of fat. This organ is also very prone to a disease

termed *fatty degeneration*, and though the two conditions are distinct, the great pathologist Virchow long ago drew professional attention to the fact that there was a rather close connection between the healthy and diseased forms of fatty liver. Kölliker and Meissner observed normal forms of fatty liver, the former noting that in suckling animals a kind of fatty liver naturally occurred a few hours after digestion, while the latter made the observation that hens in full lay have plenty of fat cells in the liver, whilst hens which have ceased to lay for some time, however well nourished they might be, had no fat in that organ.

Between the ordinary plump and the fat person, the amount of fat deposited in the subcutaneous tissues varies within pretty wide limits, both in quantity and in the amount of its chemical constituents. In one and the same individual, the fat is not of the same chemical composition in all parts of the body, as it has been shown that the fat surrounding the kidneys contains less *olein* than the fat in the subcutaneous tissues; but the physiological changes in the latter appear to be more constant, and consist in a more rapid growth and conversion of the connective tissue cells into cells containing a fatty fluid, the characters of which differ according to the animal. Every one must be familiar with the different tastes and smell of beef, mutton, or pig's fat. These differences consist in their chemical constituents, and rest chiefly on the different proportions in which, in the various kinds of fat, different fatty acids are found; but whether the fatty fluid be taken from man or the lower animals, it consists essentially of what chemists have termed *olein*, *palmatine*, and *stearine*.

When fat begins to be abnormally deposited, it extends more or less rapidly, not only in the subcutaneous tissues, but also in the connective substance around, and in the interior of our organs. If unchecked this process may lead to the production of ungainly fatty *monsters*, such as the enormously fat woman who was exhibited in this country not long ago, and may have been seen by many of us. The "Claimant" is a case in point, and Daniel Lambert, whose effigy may be seen on a sign-board in Fleet-street, was another instance. In such people the subcutaneous fat is many inches in depth, and the fat in the omentum* and around the internal organs is also enormous. The next stage is *fatty degeneration of the liver*. The heart also becomes surrounded with fat, but this must not be confounded with fatty degeneration of its muscular tissue, which is a very serious malady, and one which is familiar to the public as a somewhat common cause of death during the administration of chloroform, &c. The accumulation of fat around the heart is only found in fat people, and may reach such a condition as to interfere with its action, and even by pressure to produce fatty degeneration of its muscular substance; so that, independently of the many other inconveniences of excessive fatness, this malady should be early and carefully treated, if only to prevent a fatty degeneration of the tissue of this most important organ.

* A structure in the abdomen, or belly, which, like an apron, covers and protects the intestines.

"SOBERING REMEDIES."

By M.D.

The cure of inebriety and the eradication of drunkenness as a habit degrading and destructive alike to body and mind, form tasks, the magnitude of which is equalled only by their high importance. Inquiries are frequently addressed, in the correspondence department of this journal, regarding the most reliable means for the cure of drunken habits, and for creating a distaste for alcoholic liquors. Whilst it is true that each case must be judged on its own merits, and that the cure in such instances must be as much of mental as of physical kind if it is to prove successful, it should be also known that there exist certain substances which possess the power of counteracting the effects of alcohol, and, in some cases, of inspiring a healthy distaste for drink at large. It may therefore prove useful, as well as interesting, from a health point of view, if we briefly indicate the nature of some "sobering remedies."

The difficulty of reform in cases of drunkenness is, of course, notorious. Charles Dickens, in his "American Notes," mentions the case of a man who voluntarily incarcerated himself in a prison in Philadelphia that he might be free from the temptation to drink. He remained there voluntarily for two years. There can be no question that judicious medical treatment assists the cure; while lively surroundings, change of scene, interesting occupation, and so forth, are all moral agents in the reform of the drunkard, on which the wise place much reliance. The late Sir Robert Christison, in a lecture delivered in 1858 before the Royal College of Surgeons of Edinburgh, gave an account of a visit he had paid to an institution which had been established in the Isle of Skye for the reformation and reclamation of confirmed inebriates. "Here," says the late distinguished physician, "we found ten gentlemen —cases, originally, of the worst form, of ungovernable drink-craving—who lived in a state of sobriety, happiness, and real freedom. One, who is now well, had not yet recovered from a prostrate condition of mind and body. The others wandered over the island scene-hunting, angling, fowling, botanizing, geologizing. . . . No untoward accident had ever happened among them. I may add that it was impossible not to feel that, with one or two exceptions, we were among a set of men of originally a low order of intellect. Radical cures are rare among them; for such men, under the present order of things, are generally too far gone in the habit of intemperance before they can be persuaded to submit to treatment. Nevertheless, one of those I met there, a very bad case indeed, has since stood the world's temptations bravely, for twelve months subsequent to his discharge."

It is a notable fact that the family to which the coffee-plant belongs contains a variety of species which appear to be singularly efficient in the alleviation of the symptoms produced by alcohol, and, what is far more important, in imparting a distaste for that substance; whilst so far as the stimulating properties of these plants are concerned, they form a highly valuable part of the domestic *materia medica*. Coffee itself contains a volatile oil, certain acids, and the active principle, *caffeine*, which corresponds to the *theine* found in tea. The differences between the action of coffee and tea consist, firstly, in the greater amount of stimulating power possessed by coffee. The pulse increases, under the influence of coffee, in force and frequency; but coffee is at the same time apt to be more oppressive to the stomach. Again, coffee possesses the valuable property of relieving the pangs of hunger and of alleviating fatigue. Exertion, undertaken upon a limited amount of food or rest, can be borne under the influence of coffee, and several observers have maintained that its use diminishes the processes of waste which occur continually in the animal economy, and that food is made to "go further" by its action. All writers agree, moreover, in saying that coffee, in addition

Barnes's Impermeable Opium Poultice, an effective and perfectly safe application for relief in neuralgia, gout, rheumatism, painful swellings, and lumbago. Prices by post 1s. 3d. and 2s. 5d. 1 and 2, Trevor-terrace, Knightsbridge, S.W.—[Advt.]

to its known value as an antidote in cases of opium-poisoning, alleviates and removes the effects of alcoholic stimulation. The use of "black coffee" as an addendum to the dinner-table where wine is consumed, thus possesses a physiological justification.

Included in the order of the coffee-plant is a product which has recently been brought under our notice, the Kola-nut of West Africa, imported by Messrs. Heyman & Phillips, of 15, Clifford-street, Bond-street, London, W. Results of the analysis of this nut show that kola-nut is exceedingly rich in the caffeine principle to which coffee itself owes it powers, while it also possesses a quantity of *theobromine*, the substance to which cocoa owes its active power. This nut has been used in foreign countries as a remedy in diseases and affections of the liver and digestive system, and by some nations kola is regarded—as we have seen coffee is esteemed amongst ourselves—as a means of promoting endurance under fatigue. In this latter respect kola resembles the famous coca leaves of South America. Those who may have the opportunity of using kola-nut in cases of alcoholism and ordinary drunkenness, should certainly give this nut a trial. A teaspoonful of the powdered nut in water or milk is recommended as a cure for the effects of alcohol, while half a teaspoonful taken shortly after a meal is the dose calculated to act as a strength stimulant and as a means of warding off fatigue. As a beverage in place of tea and coffee, kola-nut may be used by placing a tablespoonful to a pint of boiling water, sugar and milk being added as in the case of coffee itself. The evidence that kola-nut acts as an antidote to the craving for "strong drink" seems to rest on a sound chemical and physiological basis, and this substance is therefore worth a trial in those distressing cases where the craving for alcohol refuses to be satisfied by ordinary means.

Concerning other remedies for drunkenness, the information which medical science is able to lay before us, shows that the strictest attention to the general health, and the improvement of the subject's surroundings, may be said to sum up the treatment of this grave social disease. Dr. Chambers has laid down the rule that the safest treatment "for the remorse of a guilty stomach" consists in the free dilution, for a time, of all foods and drinks with water. Tonics, for a time, may be used with advantage, and the diet must not be spare, but should be nourishing, while it is non-stimulating. Bromide of potass given cautiously at night, well diluted in water, has a marked effect in lessening the craving for stimulants. Regarding the opinion that a gradual reduction of the alcohol is safer than its sudden and final cessation, medical authority would seem to be on the side of instantly cutting off the supply where a cure is to be attempted. But it should be noted that where this latter plan is pursued the diet should be carefully regulated, the health of the patient made a matter of strict supervision, and quiet and rest enforced as means of avoiding any evil effects that may arise from the sudden withdrawal of the stimulant.

The Influence of the Doctor in Health-Resorts.—"Each winter resort," says John Richard Green, in *Stray Studies*, "brings home to us the power of the British doctor. It is he who rears pleasant towns at the foot of the Pyrenees, and lines the sunny coasts of the Riviera with villas that gleam white among the olive-groves. It is his finger that stirs the camels of Algeria, the donkeys of Palestine, the Nile boats of Egypt. At the first frosts of November the doctor marshals his wild geese for their winter flitting, and the long train steams off, grumbling, but obedient, to the little Britains of the south."

Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

HOW TO CURE CHILBLAINS.

This troublesome affection is apt to be prevalent at this and other times of the year, and the following variety of prescriptions from the *Chemist and Druggist*, the *British Medical Journal*, and *New Remedies*, may interest our readers:—

1. Liniment of aconite. [This is officinal in the Br. Phar. It equals 1 part of aconite to each part of product, and may be applied with a camel's-hair brush, avoiding abraided surfaces.] 2. Equal parts of the foregoing and oil of turpentine. 3. An ointment of lard and mustard rubbed in for twenty minutes before a fire. 4. Hot water. 5. Galvanism. 6. Twenty minims of tincture of arnica in an ounce of rectified spirit, well rubbed in, night and morning, with flannel. 7. Curd soap, ʒ i.; water, ʒ iv.; dissolve with heat and add camphor, ʒ iv.; rectified spirit, ʒ vi.; essence of bergamot, 45 minims; lastly, add strong water of ammonia, ʒ vi. 8. Sir Astley Cooper recommended a strong solution of acetate of lead. 9. Mr. W. Squire gave opium internally. 10. Dr. T. F. Pearce used nitrate of silver locally, with cold bathing, abstinence from alcohol, and the use of large boots. 11. Billroth recommends ointment of ammoniated mercury, cantharides, &c.

12. Avoid the constant wearing of gloves out of doors. 13. Faradisation (with an electro-magnetic machine, if preferred), applying one pole over the chilblain, the other at any convenient place on the body, and using the current as strong as it can conveniently be borne, and from three to five minutes. Immediate relief is said to follow, and after two or three days (using the current twice daily) the trouble will have disappeared if the skin be unbroken. If the skin is broken, more time will be required. 14. Mr. J. Johnston recommends, from experience, pulverised iodoform, ʒ iij.; thymol, ʒ ss.; essential oil of Eucalyptus globulus, ʒ i. Rub well in a mortar till mostly dissolved, and apply freely to the inflamed parts twice or thrice daily. When dry, cover loosely with cotton-wool. 15. Mr. Thomas Price advises nitrate of potash ʒ ij. dissolved in vinegar, ʒ vi.; well rubbed over the chilblains.

16. Vigorous daily walking. 17. Dr. E. W. Alabone declares the following to be almost infallible in curing unbroken chilblains: one egg, well beaten; diluted acetic acid, ʒ viij.; spirit of camphor, ʒ i.; oil of turpentine, ʒ ss.; tincture of arnica, ʒ i.; soak the affected parts in hot water and dry them, shake the lotion well, and rub it in and allow it to dry before the fire.

18. Venice turpentine, ʒ ij.; castor oil, ʒ i.; collodion, ʒ i. Paint it frequently over *unbroken* chilblains with a camel's-hair brush. If they are broken, use the following. 19. Camphor ointment [the Russian formula for this is, 3 parts of camphor; 1 of white wax, and 9 of lard] ʒ ij.; Vaseline, ʒ i.; chloroform, ♏x. 20. Marjolin recommends:

West Green, Tottenham, West Green College for Ladies.—The Principal, Miss Bristed, A.C.P., receives young ladies to board and educate in a thorough English education. Good schoolroom, furnished with all improvements in lighting and ventilation. Separate Swedish desks. Scientific gymnastic classes held twice a week. The pupils' studies are varied by frequent change of occupation and physical exercise. Miss Bristed's pupils have been very successful in the local University examinations. Good garden and tennis court. Prospectus on application.—[Advt.]

Peru balsam, ʒ ss. ; rectified spirit, ʒ ss. ; mix together and add dilute hydrochloric acid, ʒ ss. ; and compound tincture of benzoin, ʒ ss. Occasionally rub a little into the affected part or apply it on lint. This should be used on unbroken skin only. 21. Turner's cerate. It is made of prepared calamine, yellow wax, each 3 oz. ; lard, 1 lb. May be used when the skin is broken.

22. Dr. Alfred Wise advises that the parts be painted night and morning with the following :—soap liniment and belladonna linament, each ʒ ij. ; "liquor epispasticus," ʒ iv. Care must be taken not to cause blistering by too freely using it. 23. Paint with a solution of nitrate of silver, 30 gr. to the ounce, until the skin is blackened. 24. If blistering has occurred, use poultices in the daytime and iodoform ointment (gr. xxx. to ʒ i.) at night.

Cooley gives the following :—25. Soap liniment, 1 oz. ; cajeput oil, ¼ oz. ; tincture of cantharides, ¼ oz. 26. Sal ammoniac, ½ oz. ; vinegar, 5 oz. ; spirit of rosemary, 1 oz. 27. Oil of turpentine, 1 oz. ; camphor, ¼ oz. ; Goulard's extract, ¼ oz. 28. ("Dr. Grave's Preventive") Sulphate of copper, 11 grs. ; water, 1 oz. Apply with a camel's-hair brush, and, when dry, cover with simple ointment. 29. "Sal enixum" [Bisulphate of potash, or, more commonly, the crude salt, resulting from the manufacture of nitric acid], alum, and sulphate of zinc, each ¼ oz. ; water, 1 pint. Apply frequently. 30. Muriatic acid, ½ oz. ; friar's balsam [or compound tincture of benzoin], 3½ oz. ; mix. 31. Swediaur's paste, which consists of bitter almonds, 8 oz. ; honey, 6 oz. ; powdered camphor, ½ oz. ; flour of mustard, ½ oz. ; burned alum, ¼ oz. ; olibanum, ¼ oz. ; yolks of three eggs ; beat together to form a paste. Rub a portion on the part affected, moistened with water night and morning, then wash with warm water and dry with a cloth.

32. Wahler's ointment for broken chilblains : black oxide of iron, bole, and oil of turpentine, of each ʒ i. ; rub together and add to 1 oz. of melted resin cerate. 33. Locatelli balsam, 1 oz. ; citrine ointment, ¼ oz. ; balsam of Peru, 20 drops [Locatelli's balsam used in this formula is made as follows : melt together 4 oz. yellow wax, 1 lb. of common oil (by which we presume olive oil is intended), and 1 lb. of Venice turpentine, placing with them 4 oz. of alkanet root wrapped in a linen bag]. 34. A Russian remedy consists of the dried parings of cucumbers, the inner surfaces of which are softened with water when needed and applied to the part affected. 35. Tincture of arnica, rose water, glycerin, of each 3 parts, spirit of camphor, 1 part. 36. Sulphurous acid, glycerin, of each 1 part ; distilled water, 2 parts.

37. Another remedy which is just now going the rounds of the journals is said by Dr. Lapatin to have been found serviceable during the Turko-Russian war. Equal parts of *dilute* nitric acid and peppermint water are to be applied with a camel's-hair pencil, at first daily, and later twice a day. After three or four days the skin will peel off.

Two correspondents of the *Pharm. Zeitung* recommend the following applications :—1. In the case of chilblain with broken skin :—Yellow wax, 15 parts ; rape oil, 50 parts ; yolk of egg, 1 part ; acetate of lead, 5 parts.—M. 2. When the skin is intact :—Tincture of iodine, 2 parts ; ether, 15 parts ; collodion, 50 parts.

"How to Obtain Light from Coal Gas," is the title of a small *brochure* by Mr. A. Clarke, 30, Watling-street, London. It may be profitably perused by all consumers of gas, indicating as it does briefly but clearly, the means by which the highest illuminating power may be produced with the least expenditure of gas. The author's theory of the proper method of burning coal gas as an illuminant is summed up in the following observation : "Reduce it to 'a moderately low pressure' before it reaches the point of ignition, where it should be *heated* before being consumed."—[Advt.]

The Family Circle

"The child is father of the man."—*Wordsworth.*
"In bringing up a child, think of its old age."—*Joubert.*

HYGIENE IN RELATION TO EDUCATION AND YOUTH.

By Edward H. Riches, LL.D., F.R.A.S.

THIRD PAPER.

The mind of old or young which stagnates is sure to react deleteriously upon the body ; and a cheerfulness of spirit should at all times be insisted on, and especially with the young ; all morbid ideas, too, as to right and wrong being essentially bad. There is a German aphorism which translated runs thus : "Joy, temperance, and repose, slam the door on the doctor's nose" ; and these three elements may, without much trouble, be generally attained. The minds of children during the earlier hours of the day are better prepared to receive instruction, the body having been resting in sleep, all the powers are thereby fresher than in the evening. But even here it is the medium course which is the only right one to adopt. To work for two hours, or even for one hour, with an empty stomach, is a mistake adopted in too many schools. Breakfast should be taken by pupils before study, and this may be regarded as a fact without entering into any technical argument on the matter. As pure air is one of the great essentials to health, the size of a school-room must be ample, and, provided there be proper ventilation, there should be allowed 300 cubic feet of space, at least, to each pupil. It is well known that with young people respiration goes forward much more rapidly than with older people ; and, remembering that this is so, even though their lung space be less, it is quite necessary to allow them as much space as is required for grown-up people. It would be well, then, if every room were at least 12 feet high ; then a room, say, 30 feet long and 20 feet broad would be ample for twenty pupils ; and forty pupils might occupy a room of 40 feet long and 30 feet broad. One great and prevalent mistake is to have a uniform height of desk and form in school-rooms ; the desk, too, should never be flat like a table. Separate desks with a seat with a back are now made, and it would be well if they were generally adopted. It is pitiable to see a boy or a girl at an uncomfortable height sitting at a flat desk ; the muscles of the back and neck are, under these conditions, out of gear and sadly distressed. The *back* to a child's seat, too, is not the useless luxury our forefathers would, with dismay, have regarded it ; for surely it must be better for the body (and so for the brain) to rest itself naturally, rather than by that injurious action of boy and girl which calls forth so frequently the stereotyped command of the teacher : "Will you keep your back straight there ! Sit upright !" It is necessary to old and young alike, when sitting for some time at a desk, to wish to change a position, in order that certain muscles may be rested, and this must be done by legitimate means. The suitable desk and seat, then, are of great moment, if we are to believe what Dr. Liebreich says, namely, that *spinal deformity* and *short-sightedness* result from defects in this position of a pupil.

We remarked above, that though the lungs of a child occupy less space than those of a grown-up person, still, considering that he respires more frequently, it is only right that he should be allowed so much cubic space. An adult human being inspires and expires from his lungs ten gallons

of air every five minutes. It may be remembered, too, that he exhales unhealthy constituents in every breath; absorbing oxygen from the air around him and giving out from his lungs carbonic acid. Ventilation, then, of a school-room is of great moment, and to assist in this matter a dusting and washing of floors, desks, and seats should be insisted on by every head of a school. Dr. Parkes said that 30 per cent. of all who have recourse to the physician owe their complaints to their food! It would be quite possible to enter minutely into the best and most wholesome form of diet for children, but a sufficiency of digestible and flesh-forming matter may be taken as a broad rule, which one will be safe in following. With a young child there is always an abundance of fatty element which must be kept up, and wholesome sweets and sugar are always desirable. Good soups should always appear on every school dining-table, for they are the means of introducing at once into the system half-digested matter, which enriches and supports.

Bread should be twenty-four hours old and well covered with butter. If a child takes milk-and-water to drink, there should be at least half a pint of milk allowed, to which water may be added; for one may be sure that the milk, as a rule, is absent of cream, or that water has by some means already found its way into it before it leaves the milk-cart. Dinner should consist partly of meat and farinaceous food, such as pudding with sugar, fat, or treacle, alternating with vegetables and fruit. Neither beer nor wine is necessary to the growing child; and if all parents who wish that their children may be allowed it at school could be taught this truth, so much the better for the child now, and for the man or woman to be developed. Hufeland, who wrote before we heard of blue-ribbon armies, said that: "He who deprives his child of wine will have secured his happiness hereafter." A child of ten years of age should have about four ounces of meat at dinner, with soup or pudding, but double this quantity will be required if he partakes of only meat and vegetables. Cheese is always bad for young people, and should be avoided. The constituents of all food are *proteids*—that is, gluten of wheat, albumen, and casein of cheese, flesh forming materials; *amyloids*, such as starch, sugar, and fat, which produce heat and fat; *minerals*, which are contained in all vegetables, such as potass and soda, &c., highly necessary to maintain sound health.

According to the age and constitution of the boy or girl, the amount of sleep necessary should be determined. As sleep to the young contributes greatly to their health, we need not be niggardly in indulging them in this matter. Just as young animals are nearly always sleeping, except when awake to take their food—and in the vegetable world one may observe that the young leaves open later and close earlier than the older ones—so a child requires more sleep than an older person. Out of the twenty-four hours, adults require eight hours for sleep at least; and it may be taken as a fact that a child from seven to ten years of age who goes to bed between eight and nine o'clock, should not be disturbed till seven o'clock the next morning. Then, again, the position of a child in bed should be attended to, for as it passes nearly half its time in sleep, this is a matter which should be enforced as far as possible.

A great deal more may be said from a hygienic point of view respecting those matters which are here but necessarily briefly touched upon. And it may be remembered that in reference to the subject of hygiene in relation to education and youth, heads of schools and parents would do well to give some thought and attention from a hygienic view to such matters as baths, gymnastics, singing and music, rewards and punishments, time for and duration of occasional holidays and vacations, and school routine generally. And last, but not least, to that moral and religious training which the young of both sexes should have to pass through, which, even apart from the mere consideration of bodily health, will act as a real formative power, in casting their later years either in the symmetrical mould of conscientious happiness and health, or in the cracked vessel of mental and physical unrest, disease, and but a half enjoyed existence.

Pleasures of a Doctor's Life.—The following are some of the sweets of a doctor's life. If he visits a few of his clients when they are well, it is to get his dinner; if he does not do so, it is because he cares more for the fleece than the flock. If he goes to church regularly, it is because he has nothing else to do; if he does not go, it is because he has no respect for the Sabbath or religion. If he speaks to a poor person, he keeps bad company; if he passes them by, he is better than other folks. If he has a good carriage, he is extravagant; if he uses a poor one on the score of economy, he is deficient in necessary pride. If he makes parties, it is to soft-soap the people to get their money; if he does not make them, he is afraid of a cent! If his horse is fat, it is because he has nothing to do; if he is lean, it is because he is not taken care of. If he drives fast, it is to make people believe somebody is very sick; if he drives slow, he has no interest in the welfare of his patients. If he dresses neat, he is proud; if he does not, he is wanting in self-respect. If he works on the land, he is fit for nothing but a farmer; if he does not work, it is because he is too lazy to do anything. If he talks much, "we don't want a doctor to tell everything he knows;" if he does not talk, "*we like to see a doctor social.*" If he says anything about politics, he had better let it alone; if he does not say anything about it, "we like to see a man show his colours." If he visits his patients every day, it is to run up a bill; if he does not, it is unjustifiable negligence. If he says anything about religion, he is a hypocrite; if he does not, he is an infidel. If he uses any of the popular remedies of the day, it is to cater to the whim and prejudices of the people to fill his pockets; if he does not use them, it is from professional selfishness. If he is in the habit of having counsel often, it is because he knows nothing; if he objects to having it on the ground that he understands his own business, he is afraid of exposing his ignorance to his superiors. If he gets pay for one-half his services, he has the reputation of being a *great manager*. Who wouldn't be an M.D.?—*American Medical Monthly.*

Medical and Sanitary Exhibition, 1881.—Award of Merit.—Diabetes. Van Abbott's Gluten Bread, and all other suitable Foods for Diabetic Patients. Dietary Tables and Price Lists post-free on application. Van Abbott, 5, Princes-street, Cavendish-square, W.—Delicate Children and Adults Suffering from Nervous Depression. Van Abbott's Hypophosphite of Lime Biscuits, for Delicate Children, especially those suffering from Deficiency of Bone, Weak Joints, or Debility, and Adults suffering from Nervous Depression. Each Biscuit contains five grains of the Hypophosphite of Lime. "Quite free from disagreeable taste, and taken willingly by Children, and certainly provide an excellent means of administering this valuable compound. Our analysis proves the accuracy of the printed descriptions on the labels of the boxes. The Biscuits were suggested by Mr. W. Adams, of the Orthopædic and Great Northern Hospitals." — *Lancet*, Nov. 4, 1876.—Van Abbott, 5, Princes-street, Cavendish-square.—[Advt.]

Hampstead.—High and healthy position, near the Heath. Stanfield House School for sons of gentlemen. Home comforts; and the health of pupils carefully studied. Individual teaching. Principal: Mr. W. R. Marshall (several years' experience), assisted by eminent masters. Prospectus on application.—[Advt.]

Healthy Houses

"A happy home must be a healthy home."—*Anon.*

THE UNSANITARY HOMES OF THE RICH.

By C. F. Wingate.

(From the *North American Review.*)

PART IV.

Often the cry is raised that people should abolish plumbing altogether in houses. Such radical measures, however, are needless and unwise. Good plumbing is healthful, convenient, and comfortable, and it is as absurd to talk of abolishing it as of abolishing cleanliness, sunlight, or fresh air. Many persons try half-measures, and remove basins from bedrooms, but ignore the more obvious and serious defects of pan water-closets, foul slop-sinks, and other fixtures which are found in the very finest houses in close proximity to living and sleeping rooms. Still others have recourse to devices for excluding or destroying sewer-gas, so widely advertised of late, but which have justly been described as humbugs and frauds upon the public.

Thus far I have referred specially to houses owned by their occupants. There is still a larger class, that of leased dwellings, owned by individuals or by large proprietors, as the Astor, Rhinelander, Goelet, or Lorillard estates. They are situated in fashionable sections, and command a high rental. The plumbing is often elaborate, and was originally of average good quality. Sanitary science, however, has made such rapid strides of late, that the materials, appliances, and methods of ventilating fixtures and pipes in use ten, or even five, years ago, to afford security against sewer-gas, are now obsolete. Plumbing practice in the past was based on English experience, and has been largely modified to suit our climate and domestic habits, while experience has shown the necessity of using heavier material, better and more costly fixtures, and more elaborate methods of trapping and ventilation. As the lead soil-pipes, brick and stone drains, and cheap and inferior fixtures, to be found in most leased dwellings a decade since, have yielded to the wear and tear of time, landlords have made improvements, but in an economical fashion, having always their own interests in view. It is but natural that property owners should be slow to spend money for the benefit of their tenants. They usually employ a plumber who has sufficient discretion not to put his customer to excessive expense, by doing everything a tenant may want or which his own judgment may tell him should be done to insure safety. The result is systematic patchwork and deception, by which the tenant is frequently led to think that everything has been made right, although dangerous defects still exist. Often, only through the intervention of the Board of Health can landlords be forced to provide improvements. Again, even where a tenant himself pays for needed alterations, the plumber is ashamed to stultify himself, and hence omits to completely cure existing defects. Flagrant cases of this kind have come up in my experience. A gentleman rents a house in the belief that it is in good sanitary condition. He is assured by the landlord that all sanitary safeguards are provided. In time bad odours are noticed and sickness breaks out. The landlord, when applied to, sends his plumber, who makes some slight changes, pronounces everything all right, and goes his away. Again trouble ensues, the same course is repeated, and finally the landlord declares that nothing more can be done. Recourse may then be had to the Board of Health, whose inspectors will suggest some additional changes, or may not find anything to correct. Finally, a sanitary expert is called in, who usually discovers some serious defects in the drainage arrangements. The tenant is naturally indignant, and asks an explanation. The landlord refers to his plumber, who, when brought to book, admits that he had considered the interest of his employer alone, and made only such improvements as he thought the latter would approve and pay for.

Within a few years there has been a popular *furore* in favour of apartment houses, and numbers of flats of colossal proportions and costly construction have been built and quickly leased at high rentals. These buildings, however, are often no better in their sanitary arrangements than the average private dwellings. As a rule, they are overheated, especially the halls; usually there is inadequate ventilation, dark rooms abound, and the plumbing, while claimed to be of the best, is lacking in many essentials. Lastly, there is great danger from fire in these buildings. In more than one large apartment house wooden stair-ways surround elevator shafts, which, as repeated experience has shown, will serve to convey a fire almost instantaneously from cellar to roof. Again, the very care taken to deaden floors and prevent the transmission of sound will make it difficult to alarm the tenants in case of fire. The fact that insurance companies consider apartment houses as extra hazardous risks tells its own story; and the possibility of a fire in some of these huge structures must be anticipated with a dread which a late conflagration in a flat more than justifies.

The sanitary condition of the summer homes of our wealthy citizens at the seashore and other health resorts is on a par with that of their city residences, with this difference, that the drainage arrangements are usually executed by country plumbers, who are even inferior to city mechanics, while the universal dependence upon leaching, and unventilated cesspools in proximity to wells and cisterns, is a constant source of danger. The repeated epidemics of typhoid fever and malarial diseases in localities where such conditions prevail, and the fact that visitors are seized with these maladies after their return to the city, are ample evidence of the unhealthfulness of summer resorts. Despite the outdoor life and the exercise which visitors enjoy, it is beyond dispute that the health of the city as a whole is higher than that of the country, and that the risks of a summer spent at so-called health resorts are of a serious nature.

After seeing the ills which beset our wealthy householders in their domestic surroundings, if we visit their counting-rooms and offices, where the male members of the family amass the wealth so lavishly displayed in their homes, still further surprise is experienced. Take any one of the huge buildings in a city, where hundreds of firms, with their clerks, are daily absorbed in business affairs, and what do we find? Into a vast number of offices the direct rays of the sun never enter, and they are dimly lighted by shafts, by reflectors, or by gas. Their sole dependence for air are windows, which are rarely opened, and which look upon small, dingy courts or narrow, gloomy streets, from which lofty adjacent buildings exclude all light. Ventilation is scarcely known in these places. Elaborate and costly devices are often provided to carry off foul air, but they constantly fail to act, as there is no provision for pure air or for providing heated currents to carry away the

Dr. Nichols' Penny Vegetarian Cookery-Book.—Every household should possess this marvel of cheapness. Free for 1½d.—Nichols & Co., 23, Oxford-street, London, W.—[Advt.]

impure atmosphere. In the private offices of the heads of firms open fires may give some relief; but steam coils are the main dependence for warmth, and slowly and remorselessly roast the occupants with their dry, unvarying, and debilitating temperature.

Many offices are situated in basements, just over damp cellars; others are off dark, dank halls in close proximity to foul plumbing fixtures; while everywhere the unwholesome fumes from gas-jets, the burnt dust which settles on steam-coils, and the impalpable impurities from samples or goods stored near by, contribute to pollute the atmosphere. Any plumbing is thought to be good enough for business buildings. The wear and tear to which it is exposed from careless clerks and boys, and the neglect of janitors, with the absence of water for flushing, all contribute to make it unwholesome. Furthermore, the sewers are often very bad, in many cases, stone drains, roughly constructed, without proper pitch or ventilation, and with no means to keep them free from deposits. They were originally intended to carry off surface-water, and are wholly unsuited to convey sewage. There is no barrier to prevent sewer-air from finding its way into buildings, nor are soil-pipes carried through the roof of full size to permit its escape into the atmosphere above. Hence such buildings are found saturated with sewer-gas, and their occupants, too absorbed in business cares to heed their unsanitary surroundings, learn only too late what are the physical effects of such exposure.

These conditions undoubtedly explain the worn, weary, blanched, and prematurely aged look of so many business men. The wholesale introduction of steam for heating office buildings threatens to increase the crop of evils just pointed out, and to intensify the nervous strain which Dr. Weir Mitchell and other specialists note as so destructive to health. Our people are starving for the want of fresh air, and it is no wonder that the tired broker or merchant, after a toilsome day in his stuffy office, seeks relief in stimulants or becomes the victim of chronic dyspepsia, nervous exhaustion, insomnia, and brain paralysis. Some of the most remarkable examples of unsanitary conditions in my experience have been in business offices, and in more than one instance in new buildings supposed to have perfect plumbing. In the directors' rooms of wealthy corporations and the private offices of bank and insurance presidents these evils are found in their worst form.

Here, then, are certain facts which are sustained by the steady growth of zymotic disease and by the evidence of many observers, who have had like opportunities with myself to inspect dwellings. The question may pertinently be asked, What are our wealthy citizens going to do about it? Will they continue to pursue the ostrich policy which has prevailed of late years with such direful results? In other instances, when large numbers of people have been threatened with danger, societies have been formed to diffuse knowledge and inaugurate reforms. It would, therefore, seem timely to found an Association for Improving the Condition of the Rich, to send missionaries and to diffuse tracts among the benighted class, who, as has been shown, are exposed to such dangers. Undoubtedly the whole community would be interested in so benevolent a movement, and would contribute liberally towards its support.

POWNCEBY'S PURE WINES AND BRANDIES, as analysed, and especially selected to suit medicinal purposes, may be obtained in small quantities at wholesale prices. Free delivery within fifty miles. Circular and price current by post from POWNCEBY & Co., Wine and Brandy Importers, 183, Oxford-street London, W.—[ADVT.]

SWORD-SWALLOWERS.

WHEN a physician introduces his finger, the handle of a spoon, or a pencil into the throat of a patient, the latter experiences an extremely disagreeable sensation. Any touching, however slight it be, of the pharynx causes strangling, pain, and nausea, and the organ reacts with violence against the obstacle that presents itself to free respiration. There is no one who has not more than once experienced this disagreeable impression, and for this reason we are justly surprised when we meet with people who seem to be proof against it, and who, for example, introduce into their pharynx large, solid, and stiff objects like sword-blades, and cause these to penetrate to a depth that appears incredible. It is experiments of this kind that constitute the tricks of sword-swallowers.

These experiments are nearly always the same. (Fig. 2.) The individual comes out dressed in a brilliant costume. At one side of him there are flags of different nationalities surrounding a panoply of sabres, swords, and yatagans, and at the other a stack of guns, provided with bayonets.

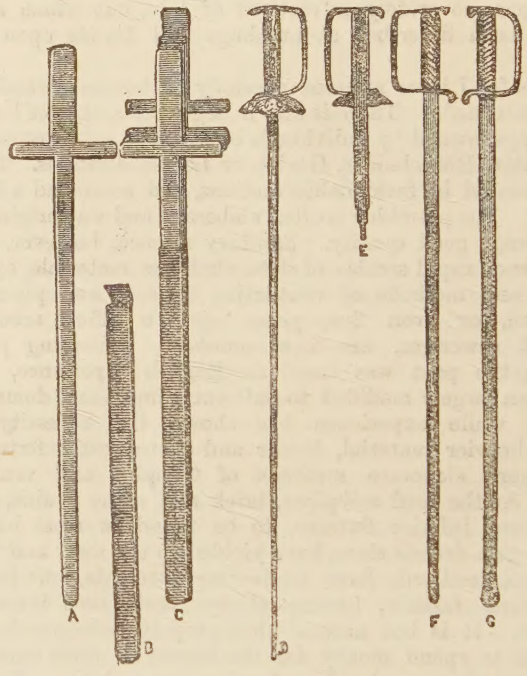

Fig. 1.—Sword-swallower's Apparatus.

Taking a flat sabre, whose blade and hilt have been cut out of the same sheet of metal (Fig. 1), the blade being from 55 to 60 centimètres* in length, he introduces its extremity into his throat, taps the hilt gently, and the blade at length entirely disappears. He then repeats the experiment in swallowing the blade at a single gulp. Subsequently, after swallowing and disgorging two of these same swords, he causes one to penetrate up to its guard, a second not quite so far, a third a little less still, and a fourth up to about half its length, the hilts being then arranged as shown in Fig. 1 (C).

Pressing, now, on the hilts, he swallows the four blades at a gulp; and then he takes them out leisurely, one by one. The effect is quite surprising. After swallowing several different swords and sabres, he takes an old musket, armed with a triangular bayonet, and swallows the latter, the gun remaining vertical over his head. Finally, he borrows a

* A centimètre is ·39 of an English inch.

large sabre from a dragoon who is present for the purpose, and causes two-thirds of it to disappear. As a trick, on being encored, the sword-swallower borrows a cane from a person in the audience, and swallows it almost entirely.

A certain number of spectators usually think that the performer produces an illusion through the aid of some trick, and that it is impossible to swallow a sword-blade. But this is a mistake, for sword-swallowers who employ artifices are few in number, and their experiments but slightly varied, while the majority really do introduce into their mouth and food-passage the blades that they cause to disappear. They attain this result as follows :—

The back parts of the mouth, despite their sensitiveness and their rebellion against contact with solid bodies, are capable of becoming so changed through habit that they gradually get used to abnormal contacts. This fact is taken advantage of in medicine. It daily happens that persons afflicted with disorders of the throat or stomach can no longer swallow or take nourishment, and would die of exhaustion were they not fed artificially by means of the œsophageal tube. This latter is a vulcanised rubber tube which the patient swallows, after the manner of sword-swallowers, and through the extremity of which an aid introduces milk or bouillon. But the patient, before being able to make use of this apparatus, must serve a genuine apprenticeship. The first introduction of the end of the tube into the pharynx is extremely painful, the second is a little less so, and it is only after a large number of trials, more or less prolonged, that the patient succeeds in swallowing 30 or 40 centimètres of the tubing without a disagreeable sensation.

The washing out of the stomach, performed by means of a long flexible tube, which the patient partially swallows, and with which he injects into and removes from his stomach a quantity of tepid water, by raising the tube or letting it hang down to form a syphon, likewise necessitates an apprenticeship of some days; but the patient succeeds in accustoming his organs to contact with the tube, and is finally able, after a short time, to swallow the latter with indifference at least, if not satisfaction.

With these sword-swallowers it is absolutely the same; for, with them, it is only as a consequence of repeated trials that the pharynx becomes sufficiently accustomed to it to permit them to finally swallow objects as large and rigid as swords, sabres, canes, and even billiard-cues.

Swallowers of forks and spoons serve an analogous apprenticeship. As known, the talent of these consists in their ability to introduce a long spoon or fork into their throat while holding it suspended by its extremity between two fingers. This trick is extremely dangerous, since the œsophagus exerts a sort of suction on all bodies that are introduced into it. The spoon or fork is, then, strongly attracted, and if the individual cannot hold it, it will drop into his stomach, whence it can only be extracted by a very dangerous surgical operation—*gastrotomy*. It was accidents of this kind that made the "forkman" and the "knifeman" celebrated, and, more recently, the "spoon-man," who died from the effects of the extraction from his stomach of a syrup-spoon twenty-four centimètres in length.

All sword-swallowers do not proceed in the same way. Some swallow the blade directly, without any intermediate apparatus; but in this case, their sabres are provided at the extremity, near the point, with a small bayonet-shaped appendage over which they slip a gutta-percha bale without the spectators perceiving it (Fig. 1, F and G). Others do

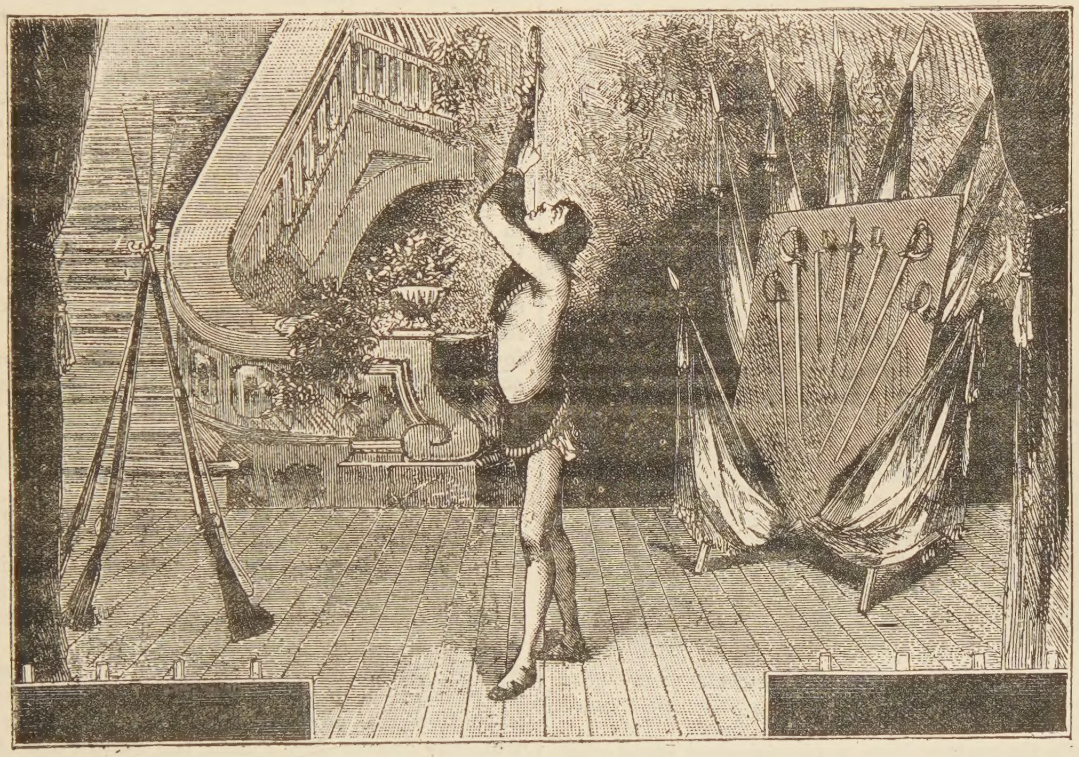

Fig. 2.—A Sword-swallowing Exhibition.

THE "SPÉCIALITÉ" LIME JUICE, for family daily use throughout the year, has not the usual musty flavour; will not turn mouldy; may be obtained of Chemists and Grocers.—FELTOE & SONS Albemarle-street, London, W.—[ADVT.]

not even take such a precaution, but swallow the sabre or sword just as it is.

This is the mode of procedure of an old Zouave especially, who has become a poor juggler, and who, in his experiments, allows the spectators to touch, between his sternum, the projection that the point of the sabre in his stomach makes on his skin.

But the majority of sword-swallowers who exhibit upon the stage employ a guiding tube which they have previously swallowed, so that the experiments they are enabled to perform become less dangerous and can be varied more. This tube, which is from 45 to 50 centimètres long, is made of very thin metal. Its width is 25 millimètres,* and its thickness 15 millimètres (Fig. 1, B.) These dimensions permit of the easy introduction of flat-bladed sabres, among other things, and of the performance of the four-sabre experiment, and of the introduction of sabres and swords of all kinds.

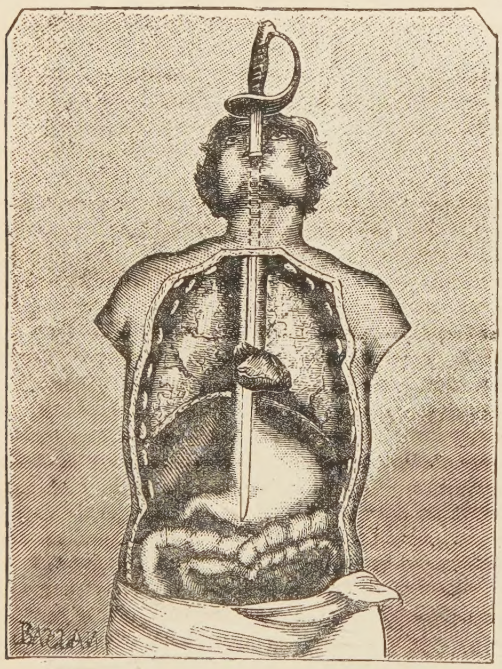

Fig. 3—The Sword as Swallowed.

To explain the matter from a physiological standpoint, the sabre swallowed by the performer enters the mouth and pharynx first, then the œsophagus, traverses the cardiac opening of the stomach, and enters the latter as far as to the antrum of the pylorus—the small cul-de-sac of the stomach. In their normal state these organs are not in a straight line, but are placed so by the passage of the sword. In the first place, the head is thrown back so that the mouth is in the direction of the œsophagus, the curves of which disappear or become less ; the angle that the œsophagus makes with the stomach becomes null ; and finally, the last-named organ distends in a vertical direction and its internal curve disappears, thus permitting the blade to traverse the stomach through its greater diameter —that is to say, to reach the small cul-de-sac (Fig. 3). It should be understood that before such a result can be attained the stomach must have been emptied through fasting on the part of the operator.

* A millimètre is ·039 of an English inch.

The depth of 55 or 60 centimètres to which these men cause their instruments to penetrate, and which seems extraordinary to spectators, is explained by the dimensions of the organs traversed. Such lengths may be divided thus :—

Mouth and pharynx	10 to 12
Œsophagus	25 to 28
Distended stomach	20 to 22
	55 to 62

According to the stature of the individual, a length of organs of from 55 to 62 centimètres may give passage to swallowed swords without inconvenience.

Sword-swallowing exhibitors have rendered important services to medicine. It was due to one of them—a swallower of both swords and pebbles—that in 1777 a Scotch physician, Stevens, was enabled to make the first studies upon the gastric juice of human beings. In order to do this, he caused this individual to swallow small metallic tubes pierced with holes and filled with meat according to Reaumur's method, and got him to disgorge them again after a certain length of time. It was also sword-swallowers who showed physicians to what extent the pharynx could become habituated to contact ; and from this resulted the invention of the Foucher tube, the œsophageal tube, the washing out of the stomach, and the illumination of the latter organ by the electric light.

It sometimes happens that sword-swallowers who exhibit in public squares and at street corners are, at the same time, swallowers of pebbles, like him whose talents were utilised by Stevens, that is to say, they have the faculty of swallowing pebbles of various sizes, sometimes even stones larger than a hen's egg, and that, too, to the number of four, five, or six, sometimes more, and of afterward disgorging them one by one through a simple contraction of the stomach. Here we have a new example of the modification of sensitiveness and function that an individual may secure in his organs by determination and constant practice.

In conclusion, let us say a word in regard to the tricks that produce the illusion of swallowed swords or sabres. One of these, which deceives only at a certain distance, consists in plunging the sabre into a tube that descends along the neck and chest under the garments, and the opening of which, placed near the mouth, is hidden by a false beard. Another, and much more ingenious one, which has been employed in several enchantment scenes, is that of the sword whose blade enters its hilt, and which is due to Mr. Voisin, the skilful manufacturer of physical apparatus. In its ordinary state this sword has a stiff blade, 80 centimètres in length, which, when looked at from a distance of a few mètres, presents no peculiarity (Fig. 1, D) ; but when the exhibitor plunges it into his mouth the spectator sees it descend by degrees, and finally so nearly disappear that but a few centimètres of the blade protrude. In reality the blade has entered into the hilt, for it possesses a solid tip that enters the middle part, which is hollow, and these two parts enter into the one that forms the base of the sword. The blade is thus reduced to about 25 centimètres, a half of which length enters the hilt. There then remain but a few centimètres outside the exhibitor's mouth, so that he seems to have swallowed the sword (Fig 1, G and E). This is a very neat trick.—*La Nature.*

Sanitary nspections.—Fee for Survey and Report, in London, 2 Guineas. Estimate given and Improvement Works carried out when required.—The Sanitary Engineering Co., 115, Victoria-street, Westminster, S.W.—[Advt.]

Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, little care."—*Sir Philip Sidney.*

Propagation of Disease by Books.—When preventive medicine is searching out and checking all possible means by which infectious and contagious maladies are spread, the part which books may play in the propagation of disease should not be overlooked. There can be no doubt that the specific contagia of many zymotic disorders, and especially of scarlatina, small-pox, and typhoid fever, in the form of particles of material emanations from the bodies of patients, may attach themselves to the covers and pages of books, and so be carried from the sick to the healthy. In private families all books and periodicals used by a patient during his illness from a zymotic disease had best be burnt upon his convalescence. In general hospitals in which zymotic diseases are treated scrupulous care should be taken that all literature used by patients suffering from contagious and infectious maladies shall be reserved exclusively for use in the special wards devoted to such disorders. We are afraid zymotic diseases are sometime spread by books through the agency of lending-libraries and second-hand book-shops; and it would be well if the literature of such establishments were occasionally subjected to efficient disinfection. Persons recovering from zymotic disease should remember that it is one of their duties to take all care to avoid their infection of the healthy; and they should be taught to refrain from handing to others the books they have used during their illness.—*British Medical Journal.*

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Hygiene and the Science and Art Department.—Mr. W. E. Crowther, hon. sec. of the Technical School, Manchester, in a letter to the *Manchester Guardian*, while admitting the necessity for some physiological instruction preceding or concurrent with the teaching of hygiene, expresses his regret that the Lords of the Committee of the Council upon Education have decided that payment shall be made on the results of the examination in this subject of such candidates only as have at the same or at a previous examination passed in the elementary stage of animal physiology. Mr. Crowther points out that medical men whose names appear in the Directory will, on application, be registered as teachers; and as institutions will naturally prefer to have their classes in hygiene and physiology taught by the same person, the effect of the regulation will be to dispossess teachers of physiology of their classes; whereas if the department had allowed teachers of physiology to teach also hygiene under the ordinary regulations as to grant, not only would the former subject thus obtain a very desirable lift into popularity and practical usefulness, but also a very salutary and fair increase of grant would have accrued to a somewhat poorly remunerated class of teachers.

Fish as a Food.—The master of the Brighton Workhouse has reported to the Guardians the results of six weeks' experiment of adopting fish in lieu of meat for dinner once in each week. The result has been most satisfactory. Comparing the cost of diet during the corresponding period of last year, notwithstanding that the daily average of consumers in 1883 was fifty-one more than in 1882, there was a saving of £18. 13s.; and what is rather wonderful, the inmates generally were in favour of the change. The only thing wanting was the certainty of a continuous supply.

Our Bookshelf

"Reading maketh a full man."—*Bacon.*

A BOOK ON INDIGESTION.

Indigestion; What it is, what it leads to, and a New Method of Treating it. By John B. Gill, M.D., M.R.C.P.E., &c. Third edition. (London: J. & A. Churchill.)

This is a book which we think has deservedly run into a third edition. Dr. Gill's key-note is struck in the statement that "*true feeding* consists in taking the *exact amount* of nourishment that can be assimilated without the generation of the poisonous products of indigestion." He tells us in his prefatory note also, that his instructions are to be carried out to the "very letter," and there is sound wisdom in the advice. That persons who live longest are those who "possess faultless digestive organs," is a statement of the author's which will not be gainsaid. Canon Beadon, who died aged 102, in July, 1879, exemplified this latter truth. A patient who speaks as follows is a mournful but all too common example of the indigestion that is due to over-eating and to nutritive excess:—"When I was a young man," says the patient, "I could eat a horse; now, thanks to past indulgence, I have a crib-biter installed in my inside. 'Tis unendurable! A stable, not a stomach, is the appropriate receptacle for a vicious quadruped." Of all the ailments which affect the civilised races of mankind, dyspepsia or indigestion is at once the most common and the most serious. We say most serious, because it is the border or common-land whence well-nigh every other disorder may take origin. Dr. Gill is perfectly right when he tells us the subject of his volume covers the whole domain of medicine, and besides making life at large miserable, induces more social discomfort than any other affection. A chapter on digestion proper affords a plain and popular *résumé* of that process, and information of this nature is necessary for the appreciation of the abnormalities which constitute indigestion. A succeeding chapter gives us no fewer than twenty-five causes of the malady of which the volume treats. Forty symptoms succeed in the fourth chapter, but many of these are, of course, indicative equally of other ailments, although associated with derangement of the stomach's duties. Acute indigestion, where, in popular language, the patient is "colicked" after a meal, is relieved, according to Dr. Gill, by inducing vomiting, and, in the majority of cases, advising extreme care in diet. Sudden exertion after dinner, mental worry, &c., may induce this form of the complaint.

But it is the chronic form of indigestion which appears before us as the serious malady which unfits the patient for the discharge of life's duties; and in the course of his remarks on the foods to be avoided, and those which may be taken by the sufferer, Dr. Gill is always most judicious. His remarks on tea, for example, are worth remembering:—"Tea is, as a rule, most sedulously to be avoided by dyspeptics. Not one in fifty can partake of it without paying a most severe penalty for his indulgence. . . . . Many dyspeptics absolutely refuse to abandon the use of tea. Under such circumstances it behoves the physician to devise means by which the injurious effects of the beverage may be reduced to a minimum. This object is, in my opinion, most easy of attainment by using high-class leaf, and infusing it with *cold* distilled water. The latter being unattainable, I recommend the substitution of rain-

water, boiled, allowed to stand till cold, and then filtered through charcoal or spongy iron. This infusion may be treated as required to the desired temperature. By a recourse to these measures, a considerable amount of flavour is obtainable, yet conjoined with the minimum of astringent principle. It is seldom necessary to allow the water to remain in the tea for a longer period than two hours."

Dealing with the subject of drugs and their use in indigestion, Dr. Gill has an interesting chapter on the action and value of various medicines in this disease. The summary of the diet-treatment given by the author consists in the advice that the food is to be graduated according to the strength of the digestive organs, and is to consist chiefly of vegetables and fruit, to which animal food is to be added in the fluid or semi-fluid condition. The times of eating are to be varied according to the circumstances of the patient—"some stomachs require food to be given at short and others at longer intervals. The drinks are to consist of water, effervescents, fruit-syrups, cocoa, cocoatina, and, perhaps, a tiny modicum of whisky, brandy, or claret very much diluted."

As a plain guide to the dyspeptic, who is willing to be guided at all in the treatment of his malady, we may cordially commend this book to the notice of our readers.

THE CARE OF THE EYES.

How to Use our Eyes, and How to Preserve Them by the Aid of Spectacles. By JOHN BROWNING, F.R.A.S., F.R.M.S., &c. With 37 illustrations. (London: Chatto & Windus.) 1883.

THIS little volume should secure a wide circle of readers. Mr. Browning everywhere endeavours to write plainly and to avoid technicalities, and in these commendable endeavours he is eminently successful. His description of the eye, with which the *brochure* opens, is interesting, and by aid of diagrams, a clear account is given of the apparatus of vision. We have been specially pleased with the many useful hints given by Mr. Browning regarding sight-preservation. The following passage on the use of coloured glasses merits quotation :—

> Coloured glasses are not resorted to nearly so much as they should be. For writing or reading, blue are the best, and some prefer this colour for walking; but generally it will be found that neutral tint or London smoke are the pleasantest, and they are equally beneficial for outdoor use.
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> Most persons will require only plane and parallel glasses; and here I must caution my readers that such lenses should always be made of optical glass, *coloured all through and worked and polished on both surfaces.* The greater part of the coloured glass spectacles and folders sold are made of white glass, which is coloured only on one side, and not worked at all, but simply fire-polished. Such glasses have many imperfections, as seeds, specks, blebs, or veins, besides unequally-polished places, scratches, and other surface-markings.
>
> Owing to the dark colour of the glass these escape notice when looking at them; but they cannot fail to be prejudicial to the eyesight of those who wear them, who have to look *through* them. Whatever spectacles are worn, whether for short or long sight, for walking or reading, coloured glass or clear, they should be worn well away from the eyes, for two reasons—the eyes should have free play of air over them and be kept cool, and the lenses and frames should be kept well off the eye-lashes. If in the involuntary winking of the eye, which is always going on, and should never be restrained, the lashes touch any part of the spectacles, the eyes will soon become irritated and often inflamed if they are naturally weak.

The most interesting part of Mr. Browning's book, perhaps, is that which relates to the choice of spectacles and to those needs of the eyes which demand their use. A vast number of useful hints are given regarding the use of spectacles, and the remarks on "single eye-glasses" may be commended to those who affect a fashionable craze :—

> Wearing a single eyeglass has happily of late become less common than it used to be, but it should be confined to those who are blind with one eye. I need say nothing respecting the unpleasant expression given to the face caused by the contortion of the features, which is made to keep the eyeglass in position. This is a small evil compared to the injury done to the eyesight by working one eye at the expense of the other.
>
> Those who wear a single eyeglass soon acquire a habit of seeing with the eye only on which it is worn. The vision of the other eye is suppressed; that is, the image which is formed on the retina remains unseen, a convincing proof that people do not see with their eyes, but with their brains. Suppressing the vision of the eye is almost as hurtful as straining the vision. The muscles of the eye that remain unused wither and lose their power, and the sight of the eye is rapidly impaired. Yet even in such cases as this, by the use of proper lenses the sight may be to a great extent regained.

Altogether Mr. Browning's work teems with interest, and deserves perusal from its intrinsic interest, and from the amount of information which may be culled from its pages regarding the physiology of seeing.

The Money Question Considered. (London: E. W. Allen, 4, Ave Maria-lane, E.C.) Price 1d.

THIS little pamphlet deals with a highly-interesting topic. It is well written, and maintains that the basis of national money is national wealth (and not gold), "which should be paid for by notes expressing the amount of the Government's indebtedness." The author argues closely, and although his views are startling, they merit the attention of all interested in the national welfare.

FLIES IN THE HUMAN BODY.—Dr. Voelkel, of Berleburg, in Westphalia, was consulted on Feb. 21, 1882, on the case of a lad, aged 13, who complained of stiff-neck and severe pains on the right side of the neck and head. On the 27th his father reported that he was much better, a "worm" having been emitted from the skin below the right eye. The cylindrical larva was about 1½ centimètres in length, and 2 millimètres in diameter, and moved actively for the space of half-an-hour. Two other "worms" had been evacuated, but had not been preserved. The patient, on March 12, presented himself with a hard white nodule about the size of a pin's head on the right cheek. This was not accompanied by inflammatory redness. The patient's brother stated that this had commenced with a small patch of redness of the skin, with tenderness to touch; that a small opening appeared, from which a few drops of watery fluid had escaped, and the larva was to be seen. By gentle pressure it was easily dislodged. On the day following another was removed. Some pain and tenderness remained for eight days after the removal of the parasite, and gradually subsided, the general health continuing unimpaired. The boy remembered having slept in the open air frequently in the preceding summer, and having suffered from the stings of insets. It is remarkable that these parasites should have remained under a healthy skin without causing eruption or wound of any kind. Dr. Voelkel submitted the larvæ to the opinion of Professor Brauer, of Vienna, with the result that Dr. Brauer entertained not the slightest doubt that the parasite was the larvæ of the *Œstrus homonis*—the larva of the gadfly. Larvæ of insects of the same order "Œstridæ" are well known by their effects on man in tropical America.

Sanitary Appliances, Etc.

WARMTH AND LIGHTNESS.—There can be no question that, as regards clothing, the essential idea of the reformer consists in the attempt to unite lightness of texture with warmth. This remark applies to the coverings which invest us during sleep, as well as to our bodily garments. Many a case of "unrefreshing sleep" arises from the fatigue which a mass of heavy bedclothes entails upon the sleeper. There can be no doubt, therefore, that the invention of the "down quilt," with its light, airy substance, and its thorough power of conserving the body's heat, must be regarded as a boon to health. Messrs. Newham & Co., of Boston, Lincolnshire, have forwarded to us a pattern of the down quilts manufactured by them. The "quilts" made by this firm are produced in two qualities —one in washable chintz and the other in washable sateen. The patterns we have seen are highly artistic in appearance, and, from an æsthetic point of view, constitute a pretty room-decoration. An examination of the feathers used in the manufacture of these "quilts" shows that they have been subjected to a thorough process of purification—this item being of the utmost importance in ensuring the wear of the quilt. Medical authority is unanimous in recommending coverings of this kind, for infants especially. The injury done to young children, the ill-effects of the interruption to breathing, and the evil of over-heating produced by the weight of heavy clothes, are so marked that in the well-regulated nursery, as well as for the ordinary bedroom, the down-quilt has become a stable institution. The prices of the quilts are extremely moderate, and from the large demand for these health-giving coverings, we are glad to note that Messrs. Newham are enabled to offer the quilts and other articles to the public on exceedingly favourable terms. We recommend those who desire warmth with ease and comfort to give these quilts a trial; and a final remark must not be omitted to the effect that they are equally useful in winter as an addendum to, and saving of, the ordinary "wraps," and in summer, when the quilt alone, forms a sufficient protection against the coolness of the night air.

DOLLOND'S NEW CLINICAL THERMOMETER.—In an early number of HEALTH we shall publish an article on the uses of the Clinical Thermometer in the Family Circle. Due mention will then be made of the extreme value of this little instrument in the mother's hands, in satisfying herself of the health of her children and others. The use of the instrument is simple in the extreme, and, as an indicator of the existence of fevers and other affections, its value is unsurpassed. Meanwhile, we would desire to call the attention of our readers to the Clinical Thermometer made by Mr. Dollond, of 1, Ludgate-hill, London, E.C. This little instrument, contained in a neat tubular case, is made in two sizes, 4 in. and 6 in. respectively. The price (7s. 6d.) is extremely moderate, and as the thermometer possesses a magnifying and indestructible "index," its use in the home is rendered perfectly easy. The importance of this little instrument in detecting the advent of disease cannot be over-estimated, and its increasing sale indicates that (as shown in the notice of "Medical Maxims," HEALTH, No. 26, p. 11) its application and use are being duly appreciated by the heads of families, who regard the early indications of disease and their arrest by treatment, as preferable to prolonged attempts at cure.

AMERICAN BREAKFAST CEREALS.—It has often been remarked that of all the meals which fashion has established in our midst, breakfast is that which has been least subject to modification and improvement. The familiar phrase "chop, fish, steak, ham-and-eggs, sir?" of the British waiter is proverbial in its monotony, and the mind of the aspirant after "fresh fields and pastures new," in the way of a dietary, naturally views with eagerness the prospect of an addition to its fare. "The American Breakfast Cereals" have provided us with a number of vegetable foods which bid fair, from their palatable nature, to rank as substitutes for porridge and other dishes now in favour. Their white wheat, maize, oatmeal, and barley food are all agreeable foods, and when properly cooked—a matter of great ease, speed, and simplicity—form nutritious dishes for breakfast and for other meals. The cost is trifling, and the purity of these cereals is assured.

MEGILP, MAGILP, MEGELLUP (the name is spelled in many other ways) is a mixture of pale linseed-oil and mastic varnish, employed by artists as a vehicle for their colours. The proportions vary, according to the work. It is thinned with oil of turpentine.

Our Letter : Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including specimens of Sanitary Appliances, &c.), to be addressed to "THE EDITOR OF HEALTH," 74-76, *Great Queen-street, London, W.C. Those intended for the Publishing Office to be sent to* "THE PUBLISHER," *at the same address.*

Contributors are requested to send stamps for the return of the MSS. *in event of non-acceptance. Every care will be taken to ensure the safety of* MSS., *but the* EDITOR *and* PUBLISHERS *cannot hold themselves responsible for accidental loss.*

Correspondents are requested to write on one side of the paper only. The EDITOR *disclaims responsibility for the opinions expressed by Correspondents.*

LETTERS TO THE EDITOR.

ELECTRO-DENTISTRY.

SIR,—In reference to the remarks of Mr. W. Lant Carpenter, B.A., in your issue of Oct. 19, upon electric appliances for the mouth, as suggested by Dr. Wedgwood, my own experience of similar appliances may be of some interest to your readers. In the year 1873 I was consulted by the late Dr. ——, himself at that time a medical electrician, and in extensive general practice, regarding the practicability of constructing an artificial denture that would convey a current of electricity to the jaws and salivary glands, as he thought such an arrangement would be of use in the treatment of neuralgia, as well as of service in stimulating the flow of the oral secretions into the mouth, and so promoting digestion; for he himself suffered from dyspepsia and a lack of salivary secretion in the mouth. At his suggestion I made him an upper vulcanite denture, on the palatal side of which I introduced a series of small metallic elements arranged alternately in pairs as for tension, and upon which the saliva was to act as the exciting fluid.

The elements were exposed on the palatal surface, and came in contact with the palate. This denture, so arranged, was worn for a long time, and was so far successful that the doctor assured me the flow of saliva was thereby increased. This electro-denture, when properly arranged and placed in slightly acidulated water, would influence the magnetic needle of a galvanometer.

About the same time I made two or three other cases for different patients which produced no perceptible influence after the first few days. Therefore the question arises as to whether the effect produced in the first case was due to an electric current or to the presence of a foreign body in the mouth, or to both of these; for we know that the presence in the mouth of a small piece of metal, such as a coin, will, in the majority of cases, produce a rapid and increased flow of saliva. But another case appears on the surface to be more conclusive. This was that of a patient who was at the time manager of some West-end public baths, and was engaged for many hours of the day in a cold office at the entrance to the building, and suffered severely from neuralgic pains in the jaws and in the regions of the eyes. For this patient I constructed an upper and lower denture, with metallic elements arranged, as in the first case, in both of the plates. After giving these dentures a fair trial, my patient assured me that he felt relief, and on this account asked my permission to wear the plates at night, which I had previously strictly forbidden him to do.

Now, the question arises here again, as to how far this relief was due to any physiological or pathological conditions which might have been produced by the electric current, and how far to the "influence of mind over body," arising from the knowledge of a novel and supposed remedy being at work. I may have some opportunities of testing the electromotive force and strength of current of this minute battery whilst *in the mouth*, and shall then be better able to judge. But that a current of electricity may be produced by a very minute battery is evidenced by the following extract from a newspaper:—"Mr. Collett writes from Hearts' Content, 'I have just sent my compliments to Dr. Gould, of Cambridge, who is in Valentia, with a battery composed of a gun-cap, with a strip of zinc, excited by a drop of water, the simple bulk of a tear!'"

My own impression is that such arrangements as these are of little practical value, except in cases wherein the saliva is of a decidedly acid reaction, as, for instance, in some of the severer forms of dyspepsia.—I am, sir, yours very truly, C. J. BOYD WALLIS,

23, Brook-street, Grosvenor-square. L.D.S., R.C.S Lond., &c.
Author of "Electricity and the Electric Light, in reference to Dentistry and Surgery."

QUERIES AND ANSWERS.

[Correspondents will please note that Queries addressed on Post-cards are consigned to our waste-paper basket. If information is worth having, it is at least worth a letter.]

GENERAL.

TOLLEMACHE.—See HEALTH, No. 20.

ANDREW CARR.—About 20 per cent., we believe; not more.

BERTHA.—Apply to the inventor.

CARGILL K.—The opinion is neither correct nor judicious. There is no question of liability.

OKEN.—Goethe appears to have propounded a skull theory at the same time. See Owen's works.

P. H. M.—Address your inquiry to the Secretary of the Pharmaceutical Society, Bloomsbury-square, London, or 119, George-street, Edinburgh.

ARTHUR P. HUNT.—You will find Pasteur's paper, read at the International Medical Congress, reported in the *Lancet* or *British Medical Journal* of the date of the Congress meeting. Look up the file or index of either journal at the office.

SANITARY.

B. GEORGE.—In our opinion, the drain is at the bottom of all the mischief. See to it: do away with the faulty trap and substitute a "Banner's" closet-pan, or a Jennings' "Wash-out" for the old pan.

THETA.—Hinckes Bird's plan was duly noticed in a recent number of HEALTH in "Notes by the Way."

C. ORME.—See "Notes by the Way," of present number, for a reference to trichina disease.

A. G. O.—Try "Sanitas Fluid." It has acted in our hands with success in a similar case.

B. ULPHO.—The fumes of a brickwork are noxious and unpleasant, and are, in our opinion, objectionable to health.

B. ASHWIN.—Bailey's Sulphur Pastilles for fumigation may be had from that firm at Wolverhampton, or 2 and 3, Abchurch-yard, Cannon-street, London, E.C.

MEDICAL.

L. F. CLOW.—Sorry we misunderstood your last. Any druggist will make you a solution of carbolic acid of the strength of 5 per cent. as you wish. The acid is daily used in solutions prepared by druggists, both in oil and water. Glad to give any further directions, if need be.

D. G.—You were duly replied to in page 46, No. 28, of HEALTH. If you had read the notices to correspondents you would have found that, owing to the immense number of queries we receive, no letter can be replied to in the same week as that in which it is received. Send us the exact name and address, please, of the practitioner you inquire about, and we will reply to you in this place. We have already said the inhalation treatment is, as a principle, a safe one.

H. LANDER.—We cannot say from your description of the case whether the patient suffers from apoplexy or not. Describe the fits, appearance, &c., more fully.

MERSEY.—Yours is a perfectly common case. You have run the gauntlet of the quacks, and, as usual, have discovered their pretensions are—in a word—lies. Don't be anxious about yourself. Take a teaspoonful of Fellows' "Syrup of the Hypophosphites" in a wineglassful of water thrice daily, half an hour or so before meals; sleep on a hard mattress; use cold sponging each morning; let your food be light and nutritious; take moderate exercise in the open air; and, above all, be cheerful. You will in a little time get perfectly well. You have no actual disease.

RIMINTON.—Will you kindly read our Notices to Correspondents? See reply also to "D. G." above. You were duly replied to in No. 28 of HEALTH. All queries are duly answered in the order of their receipt. By noting what is plainly said regarding the impossibility of giving answers at once, you will save yourself (and us) inconvenience.

A. W. G.—Send all such pamphlets to your detective police, and, if possible, hand over those who distribute them to the police. Mr. Raffles gave the quacks a lesson a few weeks ago.

W. N. W.—See (and follow) advice to "Mersey" above.

GALLED.—We fancy you would improve on a less stimulating dietary. Give up all stimulants for a time, and use a little plain Vaseline as an ointment. No connection with sweat-ducts; simply a tender condition of skin which has become almost chronic, and which care in avoiding any stimulation will check. Dust a little "fuller's earth" on the parts occasionally. If the irritation continues, protect the surface with boracic lint as a dressing.

MUSICIAN.—1. See to your boots being loose, and avoid any compression of ankles. Wash the feet frequently, and attend to the condition of your socks. 2. Read Dr. Holmes on "Voice Production" (Chatto & Windus). You are straining your voice by your own account. 3. Yes; we believe in the efficacy of the system.

ALARMED has no need to be so. Use cold sponging, and avoid all stimulants for a time. Drink potash water, and rest as much as possible. The symptoms will disappear in time.

JUNO.—The New Zealand life would certainly be a healthy one. Try the effect of a little Morson's "Pepsine" with your food; eat slowly, and be regular in your habits. Avoid tea and coffee for a time.

BLACK BESS.—So far as we can judge from your letter, you are simply low in your general health. We should recommend you to try a complete change of scene and air for a time. Live well, but moderately; no stimulants; cold sponging, if suitable; a little Morson's "Pepsine" with food, and the tonic recommended above to "Mersey." The medicine advertised is a quack production.

W. A.—Use a little plain Vaseline as an application, and, with care, the difficulty will be avoided.

G. E. L.—You are not in bad health, you are only a little low. Take the tonic recommended to "Mersey" in present number, and look to your food and habits generally. The "hair" symptoms only indicate a lowness of your system.

T. H. P.—Wear a flannel or chamois chest-protector, and clothe warmly. Buy one which protects front and back as well. Attend also carefully to general warmth, avoiding cold or damp.

A. W. G.—1. Difficult to say. Probably some individual peculiarity, which only an examination of the larynx would reveal. 2. No, unless development is arrested. 3. "Healthy Dwellings," by Galton (Macmillan).

DÉLICATESSE.—We know nothing of either of the preparations you name; but the "Elixir" is a production of a kind we cannot conscientiously commend, seeing its source and its much "puffed" character. We sympathise deeply with you, and can well understand your anxiety. There is no cure in an advanced stage. Have your physicians never recommended a change to Davos Platz or other resort? Possibly the case is too advanced; but the treatment of phthisis at high altitudes is very beneficial in suitable cases. "Fellows'" Syrup is highly recommended for checking the profuse sweating and as a general tonic. Glad to be of any further service. The inhalation treatment often does good; but all depends on the stage of the disease.

I. MACMICHAEL.—Why not attend or join a good gymnasium? Such a place is the only one we know of where variety of physical exercise can be had or attained. For the dyspepsia, try "Pepsine" with the food. We have seen great good in such cases as yours by the use, for a time, of concentrated foods, such as the preparations of Brand & Co., Little Stanhope-street, Mayfair, W. These foods (Beef Essence, &c.), are easily assimilated, and give the stomach and its mucous membrane rest. This system is worthy a trial if you suffer much; as you may, without limiting your nourishment, give your digestive system needful repose. We can send you address of a reliable physician on receipt of stamped addressed envelope.

LIBER.—See advice to "Mersey" in present number of HEALTH. Glad to advise again, if necessary.

L. M.—Yes. Decided harm from the use of cold water. Tepid or warm water might, however, be safely used. Leave off all cold baths for the time being. There are a number of absurd superstitions extant regarding the necessity of abstaining from the use of even tepid or warm water.

VERITAS.—You do not mention any particulars regarding your general health. The first may be a symptom of some ailment or other. Meanwhile, attend to the health carefully, and try a little "Æsculap" mineral water each morning as a mild aperient.

THROAT.—Depends on the cause of the sore throat. If a simple relaxed throat, try a guaiacum lozenge occasionally. A gargle made by adding a drachm of tincture of capsicum to half-a-pint of water, and used 3 or 4 times daily.

CHRONOS.—1. See advice to "Throat" above. 2. Try 15 grains Dover's Powder with a hot bath at bed-time, to induce free perspiration, and avoid exposure next day. 3. Bathe the eyes with a lotion made by dissolving 6 grains of alum in an ounce of distilled water, and smear the lids at night with pure Vaseline. The tonic recommended to "Mersey" above should do you good as a general stimulant.

F. W. G.—We fancy you are brooding too much over your ailments. Try the tonic recommended to "Mersey" in present number of HEALTH. This will probably cure your symptoms. Write again, if not improved.

SANCHO PANZA.—You certainly do not suffer from the affection you name, judging from your description. We think you must live more generously. Take fifteen drops of "Fer Bravais" or Wyeth's "Dialysed Iron," in a little water thrice daily. This will probably relieve you.

OLIVE.—A case like yours will only benefit when you have tried—firstly, a change to the sea-side, and, secondly, from the use of cod-liver oil, to which syrup of the iodide of iron has been added. You are constitutionally weak, and require constitutional treatment.

EXPRESS.—1. The habit is weakening, and if persisted in leads to great weakness and debility. See advice to "Mersey" in present number of HEALTH. 2. Yes; Dr. Pratt's book should be consulted.

TELEGRAPH.—See advice to "Mersey" above. Don't believe the quacks, whose interest it is to alarm and deceive the unwary.

HOPEFUL.—Take more outdoor exercise, and don't try double work, as you seem to be doing. Take a little "Pepsine" with your food, and a teaspoonful of Fellows' "Syrup of the Hypophosphites" twice daily before food. Try also "Æsculap" or "Friedericshall Water" as a mild aperient. Attend to your teeth.

ROB ROY.—See advice to "Mersey" in present No. of HEALTH. You must not be nervous or over-anxious. Food to be light and nourishing—eggs, milk, puddings, &c. No stimulants.

THE LIZARD.—The medical opinion is probably correct. The symptoms resemble those of gravel, but only a personal examination by a physician can decide exactly your state. We should feel inclined to see what effect the iron-tonic prescribed to "Sancho Panza" in present No. would have. Try this, and report the effect, when we shall be glad to advise further.

W. P. W.—You are generally "out of sorts." We should recommend you to take "Æsculap" water for a time each morning as a mild and safe aperient, and to make a change in your food, giving prominence to a vegetable dietary. Leave off coffee and tea. Give up the turpentine—you do not require it. Apply plain Vaseline to the affected part, and for the pains try hot salt water baths. Write again, if not improved.

OMICRON.—The person you name is a qualified medical man. We know nothing of his treatment, but if you will send us a stamped addressed envelope, we will put you in the way of getting a thoroughly sound medical opinion. We have no confidence in the professions of "advertising" doctors.

A MOTHER.—Such a case as you name is somewhat uncommon, and may proceed from some deficiency of structure or from some abnormality of function. We should, in such a case, recommend a consultation with a good physician, who alone can determine the exact cause of the symptoms you name. If you wish it, we can send you privately (on receipt of a stamped addressed envelope) the name of a physician accustomed to deal with such cases. We do not think there can be any inward growth. We shall be glad to advise you further.

JACKSTAL.—1. Take "Æsculap" water in the morning, and give up smoking at night. The tongue is merely an indicator of digestive disturbance. 2. Put a little glycerine into the ear at night, and plug the ear with cotton-wool. This will soften the wax; then syringe.

EPSILON.—1. There is no sure method of destroying superfluous hairs, save by electricity, and this can only be applied by a specialist in skin diseases. 2. The tooth-wash you name will do no harm; but it is entirely useless as a means of keeping the teeth clean. Only a powder can do this.

NENA.—We shall publish illustrated "Ambulance Lectures" shortly, by various hospital surgeons and others. Our space is limited, and we require time to develop all our projects. Thanks for your kind suggestion.

FRED. W. C.—1. Glad to hear our advice benefited you. You must not take the tonic continuously. Leave it off when well, and then try to discover the mode of life, food, &c., which best accord with health. 2. The toilet-preparations are, as a rule, well known. We note your suggestion as to their uses. 3. Regarding this matter, we are sorry you have not benefited; but your strictures are somewhat unfair. In our own case, we tested the system, and with marked benefit to ourselves. You do not allow for individual differences. No system can suit everyone. As you say your lessons will be of use to you, you have not learned in vain. We know nothing of the system save from personal experience, and we have no connection, direct or indirect, with its founder. We hear continually of cases in which its success has been marked. Thanks for your good wishes.

R. A.—You do not mention the lad's age. If above mere childhood, we fear nothing can be done—unless, if the deformity were very great, he would care to undergo a surgical operation.

DELTA.—The pamphlet is the production of a notorious quack, whose "Restorer" is a sample of the many ways in which the public are deceived and robbed. Have nothing to do with the quack, of whom we may have something particular to tell one day, as to his ignorance and swindling propensities. See advice to "Mersey" in present number. There is no need to be anxious on any account. The Dundee police should be instructed to look out for the vendors of such pamphlets.

S. E.—Take a teaspoonful of Fellows' "Syrup of the Hypophosphites," in a wineglassful of water, thrice daily, before meals for a short time, and see what effect that tonic will have upon you.

XENOPHON.—See advice to "Mersey" in present number. You should take a little "Æsculap" water, as a mild aperient, each morning for a time. If not bettered, we think we can assist you further, if you will write again. In your case, your cure is really a matter of attention to your general health.

K. B. E.—See a good surgeon, and have the patient thoroughly examined. In such a case we should feel inclined to put the patient on cod-liver oil to which syrup of iodide of iron has been added, a tablespoonful to be taken thrice daily. There is some constitutional weakness which requires attention.

NIL DESPERANDUM.—You do not name any evil effects as arising from your condition. We regard your case as depending upon a highly nervous state. Can you give any reason for the "contractions" you speak of?

T. W.—Why not try a purely vegetable dietary for a time? We have seen cases like yours cured by such a change of diet. A little "Æsculap" or "Victoria Ofner Bitter Water" in the morning will assist your cure. Avoid tea and coffee, and take a variety of vegetable dishes, and you will benefit much therefrom.

RECRUIT.—Yours is a case of careful living in the way of food, exercise, &c. You do not give any details. Please write again, stating your mode of life, &c., when we will be glad to advise you.

N. T.—Look up the Index to Vol. I. of HEALTH, now published. If you cannot find therein what you wish, we shall be glad to make search or to furnish you with a *recipe*.

FLEUR D'ORANGE.—Tobacco is slightly sedative in its action. In your case we should advise you to experiment in its discontinuance, and see how you feel after the change. Excessive smoking certainly produces a nervous state.

EXOTIC.— We do not preserve the letters of correspondents, and we cannot charge our memory with your case. But from your present statement we are glad to see you are improved. You need not continue the tonic, but with your meals try a little "Pepsine." The change you contemplate to the South would do you good. Have you tried cold sponging? For the sleeplessness and neuralgia try 15 grains of bromide of potass in a wineglassful of water for a few nights on going to bed.

ALPHA.—1. We know nothing of the association you name; but if you will send us the names of any medical men connected with it, we shall inform you if they are registered practitioners. Personally, we have no faith in such institutions. 2. The gentleman you name is a qualified medical man, that is all we can say. We have no personal knowledge regarding him.

ORION.—1. The "Professor" is a quack. Real "Professors" don't write pamphlets and distribute them in the streets. 2. No; not weakening unless frequent. 3. They are a sign of health if not too frequent. 4. Attend to general health simply, and take a little "Pepsine" with your food, and try cold sponging each morning.

EXPECTATION.—Are you not too much confined indoors? You appear to want open-air exercise, and you should arrange to try this. The head symptoms depend, we fancy, on imperfect digestion. Try a change of diet; eat vegetables and fruits, and let us hear how you progress.

F. C. C.—We suspect there is some affection of the ear-drum. Moisten the ear-cavity with a little glycerine at night, and plug the ear thereafter with cotton. This may tend to remove any wax which may exist in the ear. Have you ever suffered from scarlet fever, or from any ear discharges? If your affection continues, you must consult a professed aural surgeon.

D. F. K.—If we mistake not, we advised you before that the case was one for a surgeon's opinion. See what the surgeons at the Western Infirmary think. Possibly a simple operation might put the toe right. It seems to resist all treatment otherwise. The spine trouble is only an indication of constitutional weakness.

IDA.—For chilblains, try a liniment of equal parts of soap-liniment and tincture of cantharides. Label "For External Use—Poison." Place the liniment on the chilblains with cotton wool, and allow it to dry thereon. We have an article on "Chilblains in the present number. Guard against cold.

ARCADIA.—Try the following:—Dilute sulphuric acid one drachm; syrup of orange-peel, six drachms; water, seven and a-half ounces. Half a wine-glassful thrice daily. Let us hear the result. Cold sponging might do you good.

RAMORNIE.—Try the effect of a little Morson's "Pepsine," taken along with your food. The tonic recommended to "S. E." in present number of HEALTH should also be tried. The discharge is of no consequence. It is only an indication of your system being a little low. Glad to advise further if necessary.

W. R. P.—Try a vegetable dietary for a time, as a means of lessening the tendency you name, and rub with a sponge a little of Rowlands' Macassar Oil, night and morning, into the roots of the hair. The head may be washed once a week with tepid rain-water,

to which a little bicarbonate of soda has been added. Give this a trial, and write again if not improved. Use a soft brush.

ALICE TREVOR.—Take the tonic recommended in the reply to "S. E." in the present number of HEALTH. This will do you good. You suffer from nervous weakness, dependent on your system being a little under the normal.

J. JOSEPH.—We still think you should give the "Pepsine" a trial, and see that your digestion is well regulated. For the constipation, take a little "Æsculap" mineral water each morning. Glad to advise again, if need be.

W. S. M.—See advice to "Ramornie" in present number as to "Pepsine" taken along with food; and to "J. Joseph," above, regarding the use of a mineral water each morning as a mild aperient.

CYMRO.—You should have given the tonic a longer trial. You cannot expect your symptoms to disappear in a day or so. Continue the tonic for a time, and see advice to "Mersey" in present number. Cold sponging should do you much good also. Your letter is replied to in its order. Sorry if this reply reaches you somewhat late.

A. N.—1. Thanks for your interesting extract. 2. Look up the *Times* file for the article on the sewing-machine "Motor." 3. Never heard of the "Golden Seal" (?). Sounds like a quack name. Try Condy's Fluid (one to ten or fifteen of water).

P. R. ASHWIN.—You seem to suffer from a severe form of skin-disorder. The treatment we should recommend consists in attention to the general health, nutritious food, cod-liver oil especially to be taken thrice daily, and the tonic recommended to "Mersey" in present number of HEALTH. Try a lotion for the sores consisting of one drachm bicarbonate of soda added to one and a half ounces of glycerine. If not improved under this advice, write again.

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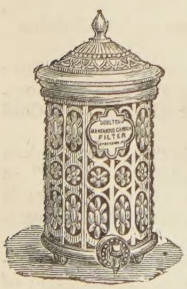

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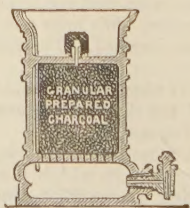

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